

In re Patent Application of:

**MELLOT**

Serial No. **09/491,953**

Filing Date: **01/26/00**

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**In the Claims:**

Claims 1-4 (CANCELLED)

5. (CURRENTLY AMENDED) A signal amplification circuit comprising:

a differential amplifier having a first input for receiving a reference voltage and second input for receiving a signal to be amplified;

a biasing resistor connected between the first and second inputs; and

a signal resistor, through which a current passes, connected between the first and second inputs and to an output of a microphone and the reference voltage, the variations of the current corresponding to the signal to be amplified, wherein the signal resistor comprises a pull-up resistor for initializing an operating state of a microphone, and wherein the second input of the differential amplifier is for connection to a microphone output.

Claim 6 (CANCELLED)

7. (ORIGINAL) A circuit according to Claim 5, further comprising an impedance matching stage having an input for receiving the reference voltage and an output connected to the first input of the differential amplifier.

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8. (CURRENTLY AMENDED) An amplifier circuit comprising:

a differential amplifier having a first input for receiving a reference voltage and second input for receiving a signal to be amplified;

a biasing resistor connected between the first and second inputs; and

a signal resistor connected between the first and second inputs and in parallel to the biasing resistor and connected to an output of a microphone and the reference voltage, wherein the signal resistor comprises a pull-up resistor for initializing an operating state of a microphone, and wherein the second input of the differential amplifier is for connection to a microphone output.

9. (ORIGINAL) An amplifier circuit according to Claim 8, wherein the variations of a current passing through the signal resistor correspond to the signal to be amplified.

Claim 10 (CANCELLED)

11. (ORIGINAL) An amplifier circuit according to Claim 8, further comprising an impedance matching stage having an input for receiving the reference voltage and an output connected to the first input of the differential amplifier.

12. (CURRENTLY AMENDED) A microphone comprising:  
a signal output; and

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an output signal amplifying circuit for amplifying a microphone output signal from the signal output and comprising

- a differential amplifier having a first input for receiving a reference voltage and second input connected to the signal output,
- a biasing resistor connected between the first and second inputs, and
- a signal resistor connected between the first and second inputs and in parallel to the biasing resistor and connected to the output of the microphone and reference voltage, wherein the signal resistor comprises a pull-up resistor for initializing an operating state of the microphone.

13. (ORIGINAL) A microphone according to Claim 12, wherein the variations of a current passing through the signal resistor correspond to the microphone output signal.

Claim 14 (CANCELLED)

15. (ORIGINAL) A microphone according to Claim 12, wherein output signal amplifying circuit further comprises an impedance matching stage having an input for receiving the reference voltage and an output connected to the first input of the differential amplifier.

16. (PREVIOUSLY PRESENTED) A method of amplifying an output signal from an electret microphone, the output signal being represented by variations in a current passing

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through a pull-up resistor for initializing the operating state of the microphone, the method comprising the steps of:

connecting a first terminal of the pull-up resistor to an output of the microphone;

connecting a second terminal of the pull-up resistor to a first input of a differential amplifier; and

connecting the first terminal of the pull-up resistor to a second input of the differential amplifier.

17. (CURRENTLY AMENDED) A method of making an amplifier circuit comprising the steps of:

providing a differential amplifier having a first input for receiving a reference voltage and second input for receiving a signal to be amplified;

connecting a biasing resistor between the first and second inputs; and

connecting a signal resistor between the first and second inputs and in parallel to the biasing resistor and to an output of a microphone and the reference voltage, wherein the signal resistor comprises a pull-up resistor for initializing an operating state of a microphone, and wherein the second input of the differential amplifier is for connection to a microphone output.

18. (ORIGINAL) A method according to Claim 17, wherein the variations of a current passing through the signal resistor correspond to the signal to be amplified.

Claim 19 (CANCELLED)

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Serial No. **09/491,953**

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20. (ORIGINAL) A method according to Claim 17, further comprising the step of connecting an output of an impedance matching stage to the first input of the differential amplifier, the impedance matching stage having an input for receiving the reference voltage.